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## Publications

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# Corrigendum: The Remote Observatories of the Southeastern Association for Research in Astronomy (SARA)

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# Corrigendum: The Remote Observatories of the Southeastern Association for Research in Astronomy (SARA)

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## Abstract

Bill Gray of Project Pluto brought to our attention an error of  $0.03^\circ$  in the listed latitude of our Kitt Peak telescope. While correcting the table where this occurred, we also take the opportunity to update the instrument properties and weather statistics of our remote telescopes.

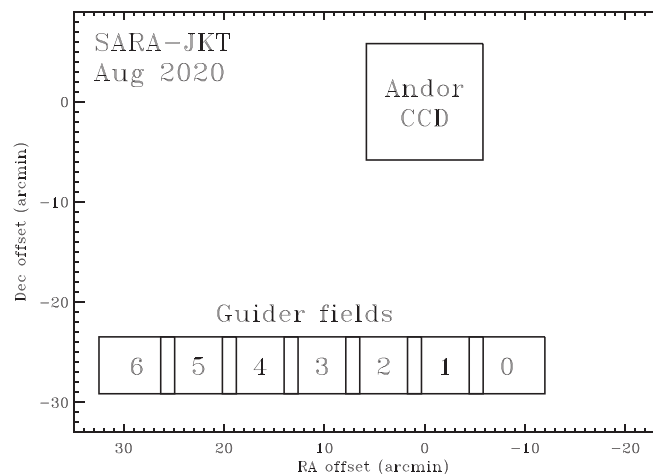
*Unified Astronomy Thesaurus concepts:* Telescopes (1689); Remote telescope astrophotography (1395)

## 1. Telescope Sites

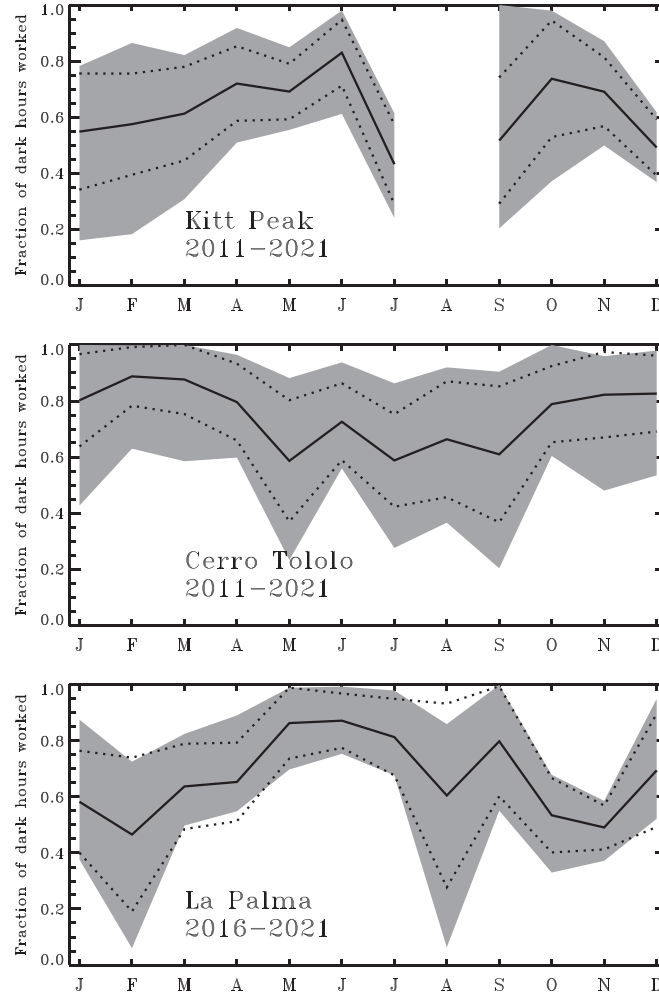
The SARA sites are summarized in Table 1.

Table 2 lists the properties of CCD systems used on the telescopes. For completeness it also includes imagers employed in the past.

The locations of available guiding fields relative to the Andor imaging CCD at SARA-RM, newly determined, are shown in Figure 1. Figure 2 updates the weather statistics at each site with data from 2016–2021, now including SARA-RM.



**Figure 1.** Focal-plane map for the imager and guider fields at SARA-RM (the JKT), matching those previously published for the other SARA telescopes.



**Figure 2.** Monthly clear-weather statistics for all three SARA telescopes for the period 2011–2021 April (at La Palma, starting in 2016 April). Lines are monthly averages; dotted lines show the  $\pm 1\sigma$  range, while shaded regions encompass minimum and maximum over this period. The gap for Kitt Peak in August reflects the shutdown for the monsoon storm season. Hours lost for technical reasons are omitted from the calculation. These values reflect hours from nightly reports when filed by observers.

**Table 1**  
Telescopes and Sites

| Site                   | Name    | Aperture (m) | Longitude     | Latitude     | Elevation (m) |
|------------------------|---------|--------------|---------------|--------------|---------------|
| Kitt Peak              | SARA-KP | 0.96         | 111°35′58″0 W | +31°57′38″1  | 2073          |
| Cerro Tololo           | SARA-CT | 0.6          | 70°47′57″11 W | −30°10′19″23 | 2012          |
| Roque de los Muchachos | SARA-RM | 1.0          | 17°52′41″1 W  | +28°45′40″2  | 2369          |

## 2. Telescope Usage and Performance

Table 3 gives magnitudes for stellar images with  $S/N=10$  in ten minutes for each telescope and current cameras, for representative seeing conditions at moderate airmass  $X = 1.3$ . These used simple aperture photometry, summing flux within a radius of  $2''.5$ .

**Table 2**  
CCD Imager Properties

| Site/Camera          | Pixel Scale (") | Field (")        | Gain | Read Noise (ADU) | Dates        |
|----------------------|-----------------|------------------|------|------------------|--------------|
| SARA-KP ARC          | 0.44            | 899              | 2.3  | 6.0              | 2012–present |
| SARA-KP U42          | 0.38            | 782              | 1.2  | 8.7              | 2006–2012    |
| SARA-CT ARC          | 0.38            | 776              | 2.6  | 5.5              | 2013–present |
| SARA-CT E6           | 0.61            | 621              | 1.5  | 8.9              | 2010–2012    |
| SARA-CT QSI          | 0.14            | $343 \times 455$ | 0.46 | 12.4             | 2012–2013    |
| SARA-CT FLI          | 0.61            | 622              | 2.0  | 9.7              | 2015–2021    |
| SARA-CT Andor Ikon-L | 0.34            | 696              | 1.0  | 7.1              | 2021–present |
| SARA-RM Andor Ikon-L | 0.34            | 697              | 1.0  | 6.3              | 2016–present |

**Table 3**  
Limiting Magnitudes at  $S/N = 10$  in 10 minutes

| Site         | <i>B</i> | <i>V</i> | <i>R</i> |
|--------------|----------|----------|----------|
| Kitt Peak    | 20.8     | 20.1     | 20.1     |
| Cerro Tololo | 21.2     | 20.7     | 19.9     |
| La Palma     | 21.4     | 21.6     | 21.1     |

### 3. Consortium Organization and Governance

New members of the SARA Consortium since 2016 are Florida Gulf Coast University (FGCU) and the University of Delaware, partnered with Mt. Cuba Astronomical Observatory.